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### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/483,762 Filing Date: January 14, 2000

Appellant(s): KERMANI, BAHRAM GHAFFARZADEH

Mr. Joseph F. Posillico For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 21, 2008 appealing from the Office action mailed May 27,2007.

### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

### (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

### (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

## (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

### (8) Evidence Relied Upon

5,199,080	Kimura	3-1993
5,855,003	Ladden et al	12-1998
6,112,103	Puthuff	08-2000

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-9,11-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Kimura</u> et al (5199080) in view of Ladden et al (5855003).

As per claims 1,17, 18,20,37-39, Kimura et al (5199080) teaches:

"a voice command remote control system for controlling a household appliance controlled device comprising.....first controlled device comprises" electrical signals speech recognition controlled device (abstract, Fig. 6; col. 1 lines 1-30)

"a recognition processor ..... stored pattern data" as recognition processor (fig. 6, subblock 5)

Kimura et al (5199080) transmits the control signal to the controlled device wirelessly (i.e.,
the recognition process is performed at the speech originating section), and does not
explicitly teach transmitting speech signals to the controlled device for further speech

processing, however, Ladden et al (5855003) teaches establishing a wireless link between the remote codec (located in the MS, fig. 6 subblock 200) and the localized speech recognizer (Fig. 6, subblock 209; col. 3 lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art of speech related remote access devices to modify the location of speech recognition in the remote of Kimura et al so that initial speech processing could be performed at the remote device and transmit speech parameters to the local device, as taught by Ladden et al (5855003) because it would advantageously use a more powerful speech recognition algorithm located at the base/local station rather than a less than ideal codec that is located at the wireless device (Ladden et al (5855003), col. 1 lines 12-20). Furthermore, KSR, 550 U.S. at , 82 USPQ2d at 1396 shows that the "use of known techniques to improve similar device, method, or product in the same way" is an example of accepted rationale supports a conclusion of obviousness; the Ladden reference provides reasons as to why one of ordinary skill in speech processing would split/offload speech processing from a handheld device to a more powerful processor (Ladden's wireless network/base station) because speech processors in a mobile device do not optimally code speech for speech recognition (col. 1 lines 16-19) as well as mobile devices do not provide adequate speech recognition, whereas offloading speech information into a base station offers access to more powerful speech recognition algorithms (Ladden, col. 1 lines 40-45). The method steps of claim 20 are performed by the system elements of system claim 1, and as such, the method steps of claim 20 are similar in scope and content to the system claim 1. Therefore, claim 20 is rejected under similar rationale as presented against claim 1 above. The claim scope of

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claims 37-39 are addressed above corresponding to the wireless features of both Kimura and Ladden

As per claims 2,19, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches:

"the voice command remote control system ..... first controlled device" as an A/D converter (Kimura et al (5199080) fig. 6, subblock 21; to be used in controlling an AV device – col. 1 lines 5-20).

As per claims 3,13,16,19,25,28,31, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches: "first controlled device ..... audio voice command" as preset command executed based on recognition ('Kimura et al (,5199080), fig. 12, subblocks s35-s41); the method steps of claim 25,28, and 31 are performed by the system elements of system claim 3, and as such, the method steps of claim 25,28,31 are similar in scope and content to the system claim 3. Therefore, claim 25,28,31 are rejected under similar rationale as presented against claim 3 above.

As per claims 4,6, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches:

"a recorder that records said electrical signal" as stored voice signals (Kimura et al (5199080), Fig. 6, subblock 23A);

As per claims 5,21,35 the combination of Kimura et al (5199080) in view of Ladden et al (.5855003) teaches:

"the recorder is located in the remote device" as recorder in the remote device (Ladden et al (,5855003), the remote codec contains speech processing capabilities - col. 3 lines 43-60)); The method steps of claims 21,35 are performed by the system elements of system claim 5, and as such, the method steps of claim 21,35 are similar in scope and content to the system claim 5. Therefore, claim 21,35 is rejected under similar rationale as presented against claim 5 above.

As per claims 7-9,22-24,36, the combination of Kimura et al (5199080) in view of Ladden et al (.5855003) teaches:

"a repeat button ..... record button ..... recorder is voice activated .....
voice-activation" as the ability for the user to be warned that a signal did no go thru, and
user repeats the command (Kimura et al (5199080), col. 4 line 45 - col. 5 line 15); the
method steps of claims 22-24,36 are performed by the system elements of system claims
7-9, and as such, the method steps of claims 22-24,36 are similar in scope and content to
the system claims 7-9. Therefore, claims 22-24,36 are rejected under similar rationale as
presented against claims 7-9 above.

As per claim 11, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches a second controlled device ...... stored pattern data -- as recognition processor (Kimura et al (5199080), Fig., 11, subblock 23b):

As per claims 12,26,27, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches a first controlled device ..... second control device -- as connection to a second control device (Kimura et al (5199080)fig. 11, subblock 24, going to multiple controllers -- #16 is shown for illustration purposes); the method steps of claims 26,27 are performed by the system elements of system claim 12, and as such, the method steps of claim 26,27 are similar in scope and content to the system claim 12. Therefore, claim 26,27 is rejected under similar rationale as presented against claim 12 above.

As per claims 14,15,29,30,32-34 the combination of Kimura et al (5199080) in view of Ladden et al (5855003) teaches a first, second, and third controlled device — as transmitting signals to multiple devices (Kimura et al (5199080), col. 1 lines 5-10); the method steps of claim 29,30,32-34 are performed by the system elements of system claims 14,15, and as such, the method steps of claims 29,30,32-34 are similar in scope and content to the system claims 14,15. Therefore, claim 29,30,32-34 are rejected under similar rationale as presented against claims 14,15 above.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of <u>Kimura et al (5199080)</u> in view of <u>Ladden et al (5855003)</u> in further view of <u>Puthuff</u> (6112103).

As per claim 10, the combination of Kimura et al (5199080) in view of Ladden et al (5855003) does not explicitly teach speech recognition training, however, Puthuff (6112103) teaches speech recognition training (col. 6 lines 10-25). Therefore, it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings of the combination of Kimura et al (5199080) in view of Ladden et al (5855003) with speech recognition training because it would advantageously adapt the system to the user (Puthuff (6112103), col. 6 lines 25-45).

### (10) Response to Argument

As per applicants arguments on page 5, second full paragraph of the Appeal Brief pertaining to hindsight, the examiner disagrees and notes that the motivation to combine the references has come from the Ladden reference itself (col. 1 lines 12-20, as noted in the Office Action rejection), and the fact that the Ladden reference contains motivation similar to applicants specification is proof that the concept was contemplated in the prior art. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the

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legal conclusion of obviousness." KSR, 550 U.S. at \_\_\_\_, 82 USPQ2d at 1396, "(C) Use of known technique to improve similar devices (method, or product) in the same way" as an example of a rationale that supports a conclusion of obviousness. Clearly, the Ladden reference provides reasons as to why one of ordinary skill in speech processing would split/offload speech processing from a handheld device to a more powerful processor (Ladden's wireless network/base station) – because codecs in a mobile device do not optimally code speech for speech recognition (col. 1 lines 16-19) as well as mobile devices do not provide adequate speech recognition, whereas offloading speech information into a base station offers access to more powerful speech recognition algorithms (Ladden, col. 1 lines 40-45).

As per applicant's arguments on page 5, 3<sup>rd</sup> full paragraph to page 6, third full paragraph of the Appeal Brief, towards the characterization of the Ladden reference, the examiner disagrees and notes that the remote unit of Ladden (codecs A&B) perform an initial speech recognition process, and when warranted, transfers the speech parameters to the base unit for further processing. In other words, the Ladden reference teaches the concept of having speech recognition/feature processing in the remote unit, and then transferring speech features to a base station (which has more powerful speech recognition/processing techniques), for improved speech recognition process; (in the Ladden reference, the examiner disagrees and notes that the remote unit of Ladden (codecs A&B) perform an initial speech recognition process, and when warranted, transfers the parameters to the base unit for further processing.) As to applicants arguments that Ladden does no teach a "controlled device", examiner argues that in contradistinction, it is the Kimura reference that teaches the remote control in contact with a controlled device, and it is the Ladden reference that teaches the transference of speech

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parameters to a more powerful processor containing a more powerful recognition engine, and as applied to the processing structure of Kimura, would improve Kimura of having a more powerful speech recognition system.

As per applicant's arguments from page 6 to page 7 regarding motivation to combine the

references, and hints at nonanalogous art, examiner disagrees and argues that the commonality of the Kimura reference and the Ladden reference is speech recognition, and the storage and execution of voice recognition algorithms, and as such, are analogous art in the realm of speech recognition processes. Kimura teaches a remote control device with a household appliance, wherein the remote contains the speech recognition processing circuitry, and send a command to the household appliance. Ladden et al teaches that remote handheld devices, such as a cell phone, have limited speech recognition capabilities and as such, Ladden teaches transferring speech parameters to a more powerful processing device (such as the wireless network) which contains more comprehensive speech recognition software (which would not be able to be contained in the remote handheld device). Ladden addresses the speech recognition issues that evolved since the era of Kimura -- that more accurate speech recognition software requires more comprehensive software code, requiring more memory/processing power and as such, teaches a technique to divide the speech recognition processing between a remote handheld device and a more powerful processing system (in the case of Ladden, the base station of a wireless network). Examiner strongly disagrees with applicants statement on page 7 of the Appeal Brief, stating, "Speech recognition typically would not be used in a wireless communication device". Examiner notes, as presented in the argument section of the Final Office Action, that - a cursory search for speech recognition used in wireless networks, generated, at minimum, the following

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references – US Patents (7050977, 7003463, 69637589, 6937977, 6675027, 6532446, 6459911, 6434403).

As to the arguments on pages 8-10 of the Appeal Brief, examiner disagrees and argues that Kimura storage of reference patterns and recalling of memory to send out the specific command to the appliance meets the claim scope of claims 4,6. As to claims 5,21,35, it is the combination of Kimura in view of Ladden that teaches the storage of information (Kimura) to be applied to speech parameters (the speech processing of Ladden in 202). As to claims 7-9,22-24,36, the combination of Kimura in view of Ladden teaches voice activated recording function (as noted above), and is a well known function in the art of voice activated remote control technology. As to the arguments against claim 11,12,14,15,26,27,29,30,32-34, it is the combination of Kimura in view of Ladden that teaches generating a second controlled device - the Kimura remote is designed to control more than one controlled device; and that the splitting of speech recognition functions, as taught by Ladden, would enable the Kimura controlled device to contain a processor that would accept both the remote signal of Kimura as well as the Ladden dictated modified signal of speech recognized parameters.

# (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael N. Opsasnick/

Primary Examiner, Art Unit 2626

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